

Appl. No. 10/649,425
Reply to Office action of 5/16/2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-20 (canceled).

21. (previously presented) A method of forming dual work function metal gate electrodes in a semiconductor device, comprising:

forming a gate dielectric over a substrate;

depositing a first mold layer over said gate dielectric;

etching said first mold layer to create a first opening;

creating a first metal gate electrode by depositing a first metal in said first opening;

removing said first mold layer;

forming a second mold layer;

then, etching said second mold layer to create a second opening; and

depositing a second metal in said second opening.

22. (previously presented) The method as recited in Claim 21, wherein first and second mold layers have different chemical compositions.

23. (previously presented) The method as recited in Claim 21, wherein said mold layer is selected from the group consisting of

a resist material;

an organic polymer; and

an inorganic material.

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24. (previously presented) The method as recited in Claim 21, wherein said first metal has a work function between about 4 and about 4.2 eV and said second metal has a work function between about 5 and about 5.2 eV.

25. (previously presented) The method as recited in Claim 21, wherein said first metal is selected from the group consisting of:

- titanium;
- chromium;
- manganese;
- zirconium;
- tantalum;
- tantalum nitride; and
- mixtures thereof.

26 (previously presented) The method as recited in Claim 21, wherein said first metal is selected from the group consisting of:

- cobalt;
- nickel;
- molybdenum;
- ruthenium;
- rhodium;
- palladium;
- rhodium;
- iridium;
- platinum;
- gold; and
- mixtures thereof.